WHAT IS CLAIMED IS:

1. A method of creating a mathematical model for determining at least one work location in a multi-layered panel, wherein said mathematical model employs an algorithm considering translational and rotational compensations caused by panel rotation, shrinkage, stretching, expansions and distortions during pressing and thermal processing of said panel, said algorithm facilitating the accurate predication of the location of said at least work location subsequent to the processing of said panel.

2. A method as claimed in Claim 1, wherein said algorithm modifies drill data for producing drill machine fiducia in the drilling of a hole, via or slot at said at least one work location.

3. A method as claimed in Claim 2, wherein said drill data fiducia is produced in said multi-layered panel after lamination thereof by providing measured rotational, translational and scalar offset data to said drill data to modify said at least one work location in said panel.

4. A method as claimed in Claim 1, wherein a plurality of said work locations are measured prior to lamination of the layers of said multi-layered panel; laminating said panel layers; measuring said work locations subsequent to lamination and resultant processing of said laminated panel; utilizing said algorithm to calculate rotational and scalar coordinate offsets resulting from said panel processing; modifying a data file of said measured values; and drilling said panel with the modified data file at optimized work locations.

5. A method for determining at least one work location in a multi-layered laminated circuit panel, said method comprising:

providing a first circuitized panel element having fiducial marks;

providing at least one additional metallic panel element;

providing a data file having reference coordinates of said at least one multi-layered circuit panel work location and having reference coordinates of said fiducial marks of said first circitized panel element;

laminating said first circuitized panel core element with said at least one additional metallic panel element to form said multi-layered circuit panel;

measuring the locations of said fiducial marks of said first circuitized panel element;

comparing rotational and scalar coordinate offset of said fiducial mark locations of said first circuitized panel element with said reference coordinates of said fiducial marks of said first circuitized panel element;

creating at least one modified work location by adjusting said data file with said rotational and scalar coordinate offset of said fiducial mark locations; and

dimensionally modifying said multi-layered circuit panel at said modified work location.

6. A method as claimed in Claim 5, comprising creating a mathematical model for determining at least one work location in said multi-layered panel, wherein said mathematical model employs an algorithm considering translational and rotational compensations caused by panel rotation, shrinkage, stretching, expansions and distortions during pressing and thermal processing of said panel, said algorithm facilitating the accurate predication of the location of said at least work location subsequent to the processing of said panel.

7. A method as claimed in Claim 6, wherein said algorithm modifies drill data for producing drill machine fiducia in the drilling of a hole, via or slot at said at least one work location.

8. A method as claimed in Claim 7, wherein said drill data fiducia is produced in said multi-layered panel after lamination thereof by providing measured rotational, translational and scalar offset data to said drill data to modify said at least one work location in said panel.

9. A method as claimed in Claim 6, wherein a plurality of said work locations are measured prior to lamination of the layers of said multi-layered panel; laminating said panel layers; measuring said work locations subsequent to lamination and resultant processing of said laminated panel; utilizing said algorithm to calculate rotational and scalar coordinate offsets resulting from said panel processing; modifying a data file of said measured values; and drilling said panel with the modified data file at optimized work locations.

10. A method as claimed in Claim 9, wherein a plurality of said multi-layered panels are sampled for said offsets by employing the algorithm considering said translational and rotational compensating so as to derive an optimized mathematical model of corrective drill data.

11. A computer program device readable by a machine, tangibly embodying a program of instructions executable by a machine to perform method steps for optimizing the drilling of holes, vias and slots in a multi-layered circuit board panel, said method comprising creating a mathematical model for determining at least one work location in said multi-layered panel, wherein said mathematical model employs an algorithm considering translational and rotational compensations caused by panel rotation, shrinkage, stretching, expansions and distortions during pressing and thermal processing of said panel, said algorithm facilitating the accurate predication of the location of said at least work location subsequent to the processing of said panel.

12. A computer program device as claimed in Claim 11, wherein said algorithm modifies drill data for producing drill machine fiducia in the drilling of a hole, via or slot at said at least one work location.

13. A computer program as claimed in Claim 12, wherein said drill data fiducia is produced in said multi-layered panel after lamination thereof by providing measured rotational, translational and scalar offset data to said drill data to modify said at least one work location in said panel.

14. A computer program as claimed Claim 11, wherein a plurality of said work locations are measured prior to lamination of the layers of said multi-layered panel; laminating said panel layers; measuring said work locations subsequent to lamination and resultant processing of said laminated panel; utilizing said algorithm to calculate rotational and scalar coordinate offsets resulting from said panel processing; modifying a data file of said measured values; and drilling said panel with the modified data file at optimized work locations.

15. A computer program device for determining said at least one work location in said multi-layered laminated circuit panel as claimed in Claim 11, said method comprising:

providing a first circuitized panel element having fiducial marks;

providing at least one additional metallic panel element;

providing a data file having reference coordinates of said at least one multi-layered circuit panel work location and having reference coordinates of said fiducial marks of said first circitized panel element;

laminating said first circuitized panel core element with said at least one additional metallic panel element to form said multi-layered circuit panel;

measuring the locations of said fiducial marks of said first circuitized panel element;

comparing rotational and scalar coordinate offset of said fiducial mark locations of said first circuitized panel element with said reference coordinates of said fiducial marks of said first circuitized panel element;

creating at least one modified work location by adjusting said data file with said rotational and scalar coordinate offset of said fiducial mark locations; and

dimensionally modifying said multi-layered circuit panel at said modified work location.

16. A computer program device as claimed in Claim 15, comprising creating a mathematical model for determining at least one work location in said multi-layered panel, wherein said mathematical model employs an algorithm considering translational and rotational compensations caused by panel rotation, shrinkage, stretching, expansions and distortions during pressing and thermal processing of said panel, said algorithm facilitating the accurate predication of the location of said at least work location subsequent to the processing of said panel.

17. A computer program device as claimed in Claim 16, wherein said algorithm modifies drill data for producing drill machine fiducia in the drilling of a hole, via or slot at said at least one work location.

18. A computer program device as claimed in Claim 17, wherein said drill data fiducia is produced in said multi-layered panel after lamination thereof by providing measured rotational, translational and scalar offset data to said drill data to modify said at least one work location in said panel.

19. A computer program device claimed in Claim 16, wherein a plurality of said work locations are measured prior to lamination of the layers of said multi-layered panel; laminating said panel layers; measuring said work locations

subsequent to lamination and resultant processing of said laminated panel; utilizing said algorithm to calculate rotational and scalar coordinate offsets resulting from said panel processing; modifying a data file of said measured values; and drilling said panel with the modified data file at optimized work locations.

20. A computer program device as claimed in Claim 19, wherein a plurality of said multi-layered panels are sampled for said offsets by employing the algorithm considering said translational and rotational compensating so as to derive an optimized mathematical model of corrective drill data.

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